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## Patent Abstracts of Japan

PUBLICATION NUMBER : 54115682  
PUBLICATION DATE : 08-09-79

APPLICATION DATE : 01-03-78  
APPLICATION NUMBER : 53022129

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INT.CL. : C09K 3/00

TITLE : WAX TEMPERATURE SENSITIVE ELEMENT

ABSTRACT : PURPOSE: To provide a wax temp. sensitive element which can be worked with good accuracy over a long term by coating the surface of a needle and/or the surface of a flexible membrane adjacent to the needle with a substance with low coefficient of friction.

CONSTITUTION: Wax 1 is stored in cylindrical metal container 2, and flexible rubber membrane 3 having a bag-shaped protrusion at the central part is closely contacted to the upper side of container 2. Stainless steel needle 4 having both ends rounded is inserted into the central bag of membrane 3 so that needle 4 is vertically movable with the guide of O-ring 7 and needle support plate 8. The resulting temp. sensitive element is a conventional one. A wax temp. sensitive element of this invention is constituted by coating the surface of needle 4 and/or the surface of membrane 3 with Teflon film 9 with low coefficient of friction. Since coated needle 4 causes little friction with membrane 3 and slides smoothly, membrane 3 is not roughened and does not undergo a change in strength due to fatigue.

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